1973 REPORT

LEGISLATIVE RESEARCH COMMISSION

WATER SUPPLY DAMAGES, REPORTING OF INDUSTRIAL WASTES AND OTHER TOXIC WASTES, AND NUTRIENT POLLUTION CONTROL

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TO THE MEMBERS OF THE GENERAL ASSEMBLY

The Legislative Research Commission herewith reports to the 1973 General Assembly its findings and recommendations concerning water supply damages, reporting of industrial wastes and other toxic wastes, and nutrient pollution control. This report is made pursuant to Senate Resolution 961, adopted by the 1971 General Assembly, which directed the Commission to study, and to report findings and recommendations on, the need for legislation concerning:

* Recovery by agencies providing water services of damages from persons polluting the water supply.

* The reporting of industrial wastes and other wastes containing toxic materials to public waste disposal systems.

* Prevention and abatement of pollution of the State's waters by nutrient waste, particularly compounds of phosphorus and nitrogen.

This report was prepared by the Committee on Environmental Studies of the Legislative Research Commission to which the Commission assigned its study on the environmental topics covered by Senate Resolution 961. The Committee on Environmental Studies consisted of:

Sen. William W. Staton, Co-Chm.

Rep. William Roberson, Jr., Co-Chm.

Rep. P. C. Collins, Jr.

Rep. Jack Gardner

Rep. W. S. Harris, Jr.

Sen. Hamilton C. Horton, Jr.

Rep. W. Craig Lawing

Sen. Lennox P. McLendon, Jr.

Sen. William D. Mills

Sen. Marshall A. Rauch

Sen. Norris C. Reed, Jr.

Rep. Carl M. Smith

Rep. Charles H. Taylor

Sen. Stewart B. Warren, Jr.

Respectfully,

Philip P. Godwin, Speaker

Senator Gordon Allen

Co-Chairmen, Legislative Research Commission

TABLE OF CONTENTS

I. WATER SUPPLY DAMAGES

Background of Problem 1

The Work of the Committee on Environmental Studies 2

Findings and Recommendations 3

II. REPORTING OF INDUSTRIAL WASTES AND OTHER TOXIC WASTES

Background of Problem 6

The Work of the Committee on Environmental Studies 7

Findings and Recommendations 8

III. NUTRIENT POLLUTION CONTROL 11

APPENDICES

Appendix A: Senate Resolution 961

Appendix B: List of Witnesses who Appeared or Were Invited to Appear at Hearings of Environmental Studies Committee on the Subjects of this Report

Appendix C: Proposed Bill to Implement Recommendations on Water Supply Damages

Appendix D: Section-by-Section Analysis of Proposed Water Supply Damages Bill

Appendix E: Proposed Bill to Implement Recommendations on Toxic Waste Reporting

Appendix F: Section-by-Section Analysis of Proposed Toxic Waste Reporting Bill

Appendix G: Proposed Effluent Standards Bill to Implement Recommendations on Nutrient Pollution Control

Appendix H: Section-by-Section Analysis of Proposed Effluent Standards Bill to Implement Recommendations Concerning Nutrient Pollution Control

I

WATER SUPPLY DAMAGES

Background of the Problem

Extensive fishkills caused by water pollution have been a source of great concern, not only to commercial and sports fishermen, but to the public at large.* The resulting loss of fishlife is serious enough, but this represents only part of the problem. Waters fouled by rotting fish and contaminated by pollution are rendered unfit for swimming, boating, and consumption.

Recent events have brought to light another undesirable by-product of water pollution incidents and chronic polluted conditions in the waters of the State: damage to public water supply systems. Water plant equipment and operation have been affected. Water supply intakes have been clogged and fouled. Additional expenditures have been made necessary for chemicals to maintain drinking water quality and safety.

These problems were dramatized by the Yadkin River fishkills of 1970. One of the reported effects of these pollution incidents on the upper Yadkin was damage to water supply systems of downstream cities along the Yadkin.

In response to these conditions a bill was introduced in the 1971 General Assembly to authorize agencies providing water supply services to recover damages in the courts from persons polluting the water supply (H 781). The bill sought to establish a procedure looking toward recovery of such damages, if necessary by lawsuit. A proposed measure of damages was set forth in the bill. The procedures proposed in H 781 were modelled after an existing

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* Fishkills are sometimes the product of natural conditions beyond human control. But investigations have established that many fishkills have been caused by careless or inadequate pollution control measures.

statute that directs the N. C. Board of Water and Air Resources (BWAR, hereafter) to administratively assess and enforce fish and wildlife damages resulting from fishkills. (G.S. § 143-215.4(a)(7).) The introducer of H 781, Rep. Nash, suggested to the BWAR that the existing fishkill law merely be extended to include water supply damages, but BWAR spokesmen had reservations concerning this approach. Their reservations went partly to manpower needs and partly to policy considerations--it was thought undesirable that the BWAR should become an arbiter between one city and another, as might happen if the fishkill procedure were extended to cover water supply damages.

H 781 was reported to the floor by the House Committee on Water and Air Resources by a split vote, with the understanding that it would be re-referred to a Judiciary Committee for review of legal aspects of the bill. The bill was re-referred to Judiciary #2, which later reported it unfavorably. After H 781 died in committee,the subject of water supply damages was listed among the items to be considered by the LRC under Senate Resolution 961.

The Work of the Committee on Environmental Studies

Pursuant to S.R. 961, we appointed a Committee on Environmental Studies to consider the water supply damage issue and related environmental problems. At its public hearings the Committee on Environmental Studies gave interested persons an opportunity to air their views on this subject.

Public officials and citizens of the Salisbury area appeared and testified in favor of the enactment of legislation along the lines of H 781. Their description of the water supply damage problem mirrored our own (see page 1 above).

Spokesmen for the BWAR reiterated the agency's reservations about extending the fishkill procedure to cover water supply damages, with the BWAR

as potential arbiter between contending municipalities. However, the BWAR did express its support for legislation similar to H 781, with prospective application. Such a law, it was urged, would fit well with the water quality protection concept as an added incentive to effective pollution abatement and control.

Further light was also shed by these hearings on the need for a bill such as H 781, that would ensure a judicial forum for water supply damages suits. It was pointed out that under present law any of several procedural barriers might prevent consideration of such suits on their merits. Among these procedural barriers might be technical questions concerning riparian rights or riparian status of municipalities; possible assertion of sovereign immunity as a defense by public agencies; and possible questions concerning standing to sue. It became apparent from testimony before the Committee that the City of Salisbury has been deterred by these potential procedural barriers from bringing suit for water supply damages.

On the basis of its inquiries and hearings the Committee on Environmental Studies recommended the enactment of legislation in 1973 along the lines of H 781.

Findings and Recommendations

(1) New legislation is needed in North Carolina to ensure that the courts will be available as a forum to hear and resolve meritorious claims for water supply damages caused by water pollution. The hearings of our Committee on Environmental Studies have shown that purely technical and procedural considerations may bar judicial consideration of meritorious claims of this nature. We believe that a forum should be reliably open, where these claims can be heard on their merits. Any purely procedural or technical barriers to the hearing of such claims should be eliminated.

For the reasons that have been expressed by the BWAR (see pp. 2-3 above), we are not inclined to propose the expansion of the administrative fishkill procedure to encompass water supply damages claims. Therefore, we recommend that the courts be made available for the hearing and resolution of these claims.

(2) Legislation concerning water supply damages should: (a) establish a procedure facilitating recovery of valid damage claims, if possible out of court, but if necessary by lawsuit; (b) eliminate all technical defenses to the hearing of such claims by the courts; (c) specify the grounds for such claims (e.g., for violation of water quality standards); and (d) prescribe a reasonable measure of damages. A law embodying these features would establish a fair and orderly basis for resolution of meritorious claims. The 1971 bill, H 781, is a satisfactory vehicle for such legislation, if modified as indicated in the next paragraph.

(3) The recommended legislation should be prospective in its effect, and should not apply retroactively to previously accrued claims. A major basis of the objections raised in 1971 to H 781 was that it might have applied retroactively to disputed claims that arose prior to enactment. Another retroactive bill would probably encounter the same objections in 1973. We recommend, therefore, that legislation be enacted to establish the principle of an open forum for water supply damage claims arising after its enactment.

(4) The Commission recommends enactment of the bill set forth in Appendix C ("A bill to be entitled an Act to authorize public agencies providing water services to recover damages from persons polluting the water supply.") The recommended legislation would authorize any agency

providing water service to recover damages from persons polluting its water supply. It would eliminate purely procedural objections to the recovery of such damages, establish the principle of an open forum for water supply damage claims, and prescribe the necessary procedures for an orderly resolution of these claims. It embodies the provisions of the 1971 bill on this subject (H 781), without the retroactive feature that invited objections to the bill in 1971.

II

REPORTING OF INDUSTRIAL WASTES AND OTHER TOXIC WASTES

Background of the Problem

Introduction

Municipalities in North Carolina and nationwide today confront a monumental task in meeting the need for adequate treatment of domestic and industrial wastes. One side of the problem is financial--the demand for sufficient funds to build and maintain collection, treatment and disposal facilities. The citizens of North Carolina have responded to that challenge by approving, this year, the $150 million Clean Water Bond Issue, to provide state assistance for local water and sewer plant facilities.

The other side of the problem is management. A critical and largely unmet need of municipal treatment plant management today is informational--especially, the requirement for accurate and comprehensive information concerning industrial and commercial waste loads discharged into muncipal sewers. Without such information, municipalities cannot hope to keep their treatment facilities abreast of current demands. And the lack of such information has been a major weakness of municipal waste treatment systems in North Carolina in recent years. (The information gap in municipal systems also impairs the State's water pollution control information base, which obviously can be no better than its local sources.) This report is addressed to the need for a reliable mechanism to fill the information gap in municipal waste treatment systems.

Prior Legislative Efforts

Legislation was proposed in 1971 seeking to strengthen the water pollution information sources of both state and local governments.

The General Assembly enacted an administration program bill addressed to the need for information at the state level, the "Water and Air Quality Reporting Act of 1971." (S.L. 1971, Ch. 1167.) This new law established a comprehensive State reporting and monitoring system to enable the BWAR to maintain full and up-to-date information concerning wastes discharged to the State's waters by industries, municipalities and others.

Legislation aimed at the need for information at the local level was also seriously considered in 1971. Rep. Payne introduced a bill to require that persons who discharge into municipal or county sewage treatment systems industrial wastes or other wastes containing toxic substances should provide regular detailed reports to the city or county concerning the nature, content, and volume of their wastes. (H 409). The "teeth" in this bill consisted of civil penalties for failure to comply with the reporting requirements, plus requirements that the polluters must keep their waste loads within prescribed tolerances (on the order of 5-10 per cent) during each reporting year. This bill generated much discussion and controversy within the House Water and Air Resources Committee to which it was referred. The Committee and expert witnesses who appeared before the Committee had considerable sympathy for the purposes of H 409, but disagreed on details. After many meetings on the subject, the bill was reported favorably in substitute form with numerous amendments but failed to pass second reading in the House, and was later listed among the items for LRC study by SR 961.

The Work of the Committee on Environmental Studies

The subject of H 409 was included in the agenda of our Committee on Environmental Studies, and the Committee gave interested persons an opportunity to air their views on this subject. Testimony before the Committee

supported the development of a bill along the lines of H 409.

Spokesmen for the BWAR recommended that such legislation be enacted in 1973, as an essential link in the water pollution control review and planning process. It was observed that the development of a waste discharge information system would permit both local and state governments to analyze and project the adequacy of waste treatment facilities. It would also serve as a base upon which local governments might predicate sewer use charges. It would help also to identify specific discharges that were beyond the capacity of existing waste treatment facilities. The particular importance of information concerning toxic wastes was stressed, because of their potential adverse effect upon collection and treatment facilities, and the need for handling and treatment adapted to the particular waste.

It was also pointed out to the Committee that H 409 had undergone substantial refinement during its consideration by the General Assembly in 1971. The substitute bill that finally emerged from committee in 1971 met most of the specific objections that had been made to the bill during committee consideration.

On the basis of its hearings and inquiries, the Committee on Environmental Studies recommended the enactment in 1973 of legislation along the lines of H 409.

Findings and Recommendations

(1) New legislation is needed to establish the legal foundation for requiring industries and businesses that discharge wastes to municipal sewers to report the nature and volume of these waste discharges to the units of local government receiving the discharges. The compelling need for current and comprehensive data concerning waste discharges is painfully obvious. This information is of vital importance both to the local governments themselves

and to state government in connection with its water pollution control program. The development of information concerning toxic wastes is especially pressing.

(2) The proposed waste discharge reporting legislation should be modelled along the lines of H 409, and should contain the following elements:

a. A requirement that defined persons report the nature and volume of wastes discharged to the appropriate unit of local government at specified intervals.

b. A requirement that parameters be established for the waste discharged by such persons, which are not to be exceeded without prior approval.

c. A requirement that persons advise the appropriate unit of local government in advance when any activity is undertaken that will increase the volume or change the characteristics of the waste being discharged.

d. A requirement that periodic projections of future waste discharges be furnished the unit of local government.

e. A requirement that units of local government periodically advise the Department of Water and Air Resources of the results of the analysis of reports received by the local government.

f. Establishment of a permit system regarding the discharge of waste to the waste treatment facilities of any unit of local government.

g. Establishment of penalties sufficient to deter violations of the Act.

Legislation containing these features should effectively fill the existing information gap for waste discharge data at both local and state levels.

(3) The Commission recommends the enactment of the bill set forth in Appendix E of this Report. ("A bill to be entitled an Act to provide for the monitoring of the discharge of industrial and other waste.") The bill that we recommend is substantially identical with the committee substitute for H 409, as considered by the 1971 General Assembly. Amendments contained in the committee substitute met most of the specific objections raised concerning the bill in 1971. We believe that this is a fair and reasonable bill which responds to the serious need that has been amply documented in this report.

III

NUTRIENT POLLUTION CONTROL

Background of the Problem

Introduction

One of today's most publicized water pollution problems is nutrient pollution or "eutrophication." This is the process by which a body of water becomes well nourished or overnourished from an increase in essential plant nutrient elements. This conditions encourages heavy growths of green plants, especially algae, which interfere with recreational uses of waters and impart an unpleasant taste to drinking waters. Fishlife may be adversely affected, and boating, swimming and fishing discouraged.

Eutrophication is not a problem of all surface waters, either presently or potentially. It affects only slow moving waters, such as lakes, estuaries and lower reaches of large rivers. The receiving water must receive nutrients that can support algae; phosphorus, nitrogen and carbon are the most important of these. And the receiving water must be favored with enough sunshine for photosynthesis. Thus, clear and shallow waters are more likely to become eutrophic than deep turgid waters.

The nutrients that generate eutrophication are found abundantly in sewage and other wastewaters, and in urban and agricultural runoff. But not all wastewaters or runoff are potential culprits. It has been estimated that approximately 85% of the U. S. population makes no contribution to eutrophication in natural waters--that is, only 15% of the population discharges wastes into waters susceptible to eutrophication.

While eutrophication may be a limited problem, this does not detract from its importance and undesirability where it occurs. And

though domestic sewage (and specifically, phosphate detergent waste) is most commonly painted as the villain in the piece, the matter of pinpointing the sources of eutrophication is not so simple. Agricultural runoff, as well as urban runoff, appears to be an important source in some places. And industrial wastes may be significant also. We need only point to recent disclosures that industrial wastes could be an important contributor to eutrophication of the Chowan River that came to light only this year.

Many studies and surveys of eutrophication are being carried forward in this State and elsewhere. The N. C. Office of Water and Air Resources is in the early stages of surveys on eutrophication in North Carolina's waters. The UNC Water Resources Research Institute and other university researchers are conducting studies of agricultural and urban runoff sources. The subject of domestic waste sources has been under intensive study here and throughout the nation for some years.

Progress in appraising the problem and in identifying possible solutions varies from one aspect of the subject to another. For example, the likely solutions in terms of treatment and waste management for industrial sources appear to be reasonably well identified. On the other hand, much more needs to be learned about the solutions to agricultural and urban runoff problems. Currently the most controversial issue revolves around the problem of reducing phosphate detergent wastes in domestic sewage. On this matter, some experts argue vigorously for bans or sharp controls over phosphate content of detergents. Other experts urge with equal vigor that this cure generates problems that are as serious as the disease, and that improved municipal waste treatment is the most reasonable and economic solution. Not long ago the two leading federal experts on the subject, the U. S. Surgeon General and the

Administrator of EPA, were sharply at odds over this issue. (As noted below at page 14, however, they have recently resolved this disagreement, at least for the time being.)

Against this background we can now turn to a review of proposals that have been made in North Carolina for control of nutrient pollution.

Prior Legislative Efforts

A bill introduced in 1971 would have empowered the Board of Water and Air Resources to adopt regulations limiting phosphate, nitrate and other plant nutrient content of detergents used in North Carolina, looking toward ultimate elimination of all nutrient content. After hearings before the House Committee on Water and Air Resources, at which the wisdom of this measure was questioned by expert testimony, the bill was reported unfavorably (H 118, introduced by Rep. Bryan).

After the failure of H 118 in 1971, the subject of nutrient pollution control was listed among the items for LRC study by SR 961. It is worthy of note that this study direction contemplated a consideration of, not merely control of detergent nutrient content, but the broader subject of "prevention and abatement of pollution of the State's waters by nutrient waste."

The Work of the Committee on Environmental Studies

The subject of nutrient pollution control was included in the agenda of our Committee on Environmental Studies. The Committee held public hearings that gave interested persons an opportunity to air their views on this subject. The Committee heard testimony on several different aspects of the subject, including the detergent nutrient controversy as well as broader aspects of nutrient pollution control. Part of that testimony served as the basis of the introduction to this report.

As to the detergent nutrient controversy, testimony was again received on both sides of the issue--i.e., both supporting and opposing proposals to empower a state agency to impose restrictions on detergent nutrient content. There was one significant new development on this front. The Committee learned that the U. S. Surgeon General and the Administrator of EPA, according to the latest available information, had settled their previous disagreement on the issue. (At an earlier date EPA had specifically recommended governmental controls over detergent nutrient content, while the Surgeon General had opposed this position because of his concern about the public health risks of household cleansers that could serve as alternatives to phosphate detergents.) The Committee was informed that the Surgeon General and the Administrator of EPA, late in 1971, issued a statement advising states and localities of their joint recommendation against laws and policies that unduly restrict the use of phosphates in detergents. This recommendation was based upon their conclusion that the health hazards of effective substitutes for phosphate detergents made reliance on these substitutes unwise at this time.

Suggestions were also received on broader aspects of nutrient pollution control. The BWAR advised that its ability to administer nutrient pollution controls, as well as other water pollution controls, would be much strengthened if it were explicitly authorized to adopt effluent standards and limitations. (While the BWAR might attempt to adopt effluent standards under its present legal powers, its authority to do so is debatable and would be likely to be contested.) The use of effluent limitations on nutrient content, for example, would make BWAR policies much more readily enforcible with respect to industries and municipalities discharging wastes containing nutrients.

It appears likely that the next round of federal water pollution control legislation will assume that states are empowered to adopt effluent standards.

For these reasons, BWAR urged that we recommend legislation that would explicitly authorize adoption of effluent standards and limitations. No objections were made to this proposal. BWAR spokesmen also indicated that continuing surveys, studies and surveillance are needed with respect to emerging and potential nutrient pollution problems.

On ths basis of its hearings and inquiries, the Committee on Environmental Studies proposed the recommendations that are set forth in the next section of this report.

Findings and Recommendations

(1) Nutrient pollution is a problem of sufficient present or potential concern to warrant careful, continuing surveillance, and imposition of appropriate controls where such controls are shown to be needed. Partly because the results of nutrient pollution are often highly visible, it is probably true that exaggerated anxiety has been expressed and publicized about the problem in some instances. It is also true that nutrient pollution is not a universal problem, but a territorially limited one. But concrete evidence of developing nutrient pollution problems in North Carolina, and interim findings of current studies, indicate a need for continuing surveillance and for exercise of control powers where warranted.

(2) New legislation is needed in North Carolina to explicitly authorize adoption of effluent standards and limitations by BWAR, in order to strengthen pollution control programs generally and nutrient pollution controls specifically. It seems plain that pollution control activities will be hampered

until the BWAR can act, with clear authority, to place specific standards and limits on particular discharges. The evidence before us indicates that the BWAR's present authority to do this is sufficiently debatable to have deterred positive action on the matter. The evidence also indicates that this authority is needed, not only with respect to nutrient pollution, but also as to water pollution problems generally. Similar authority (to adopt emission standards) already exists with respect to air pollution, and this proposal essentially gives the BWAR the same powers as to water pollution.

(3) The Commission recommends enactment of the bill set forth in Appendix G ("A bill to be entitled an Act to amend Chapter 143 of the General Statutes of North Carolina, so as to empower the North Carolina Board of Water and Air Resources to adopt effluent limitations or standards for sources of water pollution.") The recommended bill would strengthen enforcement ability for nutrient pollution controls and for water pollution controls generally. The language and definitions used in this bill are modelled closely after pending federal water pollution bills, so as to facilitate consistent administration of federal and state laws.

(4) The Commission recommends that the BWAR continue and strengthen, if feasible, its survey and surveillance activities concerning nutrient pollution, and that the BWAR take such action as it deems appropriate concerning nutrient pollution, in light of its emerging findings. We also urge that university-based research into the origins, nature and effect of nutrient pollution be continued. It seems obvious that our understanding of nutrient pollution mechanisms and solutions is more nearly complete in some areas than others. Where this understanding is reasonably thorough and where symptoms

of nutrient pollution are apparent, the time for action has come. Where understanding is deficient or symptoms are not plain, more study and surveillance are in order.

The evidence that we have received of the need for detergent nutrient controls at the state or local levels is not sufficient to clearly outweigh contrary indications at this time. Thus, we are not prepared to recommend that the BWAR be authorized to impose limitations on phosphatic or other nutrient content of detergents. However, we would not wish to deter the BWAR from continuing its own examination of this subject, nor from making such recommendations as its findings may suggest.

APPENDIX A

SENATE RESOLUTION 961

GENERAL ASSEMBLY OF NORTH CAROLINA
1971 SESSION

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SENATE RESOLUTION 961

Sponsors: Senators Allen and Patterson.

Referred to: Calendar Committee.

July 12

A RESOLUTION AUTHORIZING THE LEGISLATIVE RESEARCH COMMISSION TO STUDY THE NEED FOR LEGISLATION CONCERNING CERTAIN ENVIRONMENTAL PROBLEMS.

Be it resolved by the Senate:

Section 1. The Legislative Research Commission is hereby authorized and directed to study the need for legislation concerning the following subjects:

(1) Regulation of septic tank wastes;

(2) Prevention and abatement of oil pollution, including measures for prevention or cleanup of oil spills;

(3) Regulation and management of animal and poultry wastes;

(4) Prevention and abatement of pollution of the State's waters by nutrient waste, particularly compounds of phosphorus and nitrogen;

(5) Prevention and abatement of pollution of the State's waters by sedimentation and siltation, particularly that occurring from runoff of surface waters and from erosion;

(6) Recovery by agencies providing water services of damages from persons polluting the water supply;

(7) The reporting of industrial wastes and other wastes containing toxic materials to public waste disposal systems.

(8) Such other environmental protection or natural resource management subjects not specifically assigned by law or resolution to another Legislative Study Commission as the Commission may deem appropriate.

Sec. 2. With respect to the subjects enumerated in Section 1, the Commission shall examine and evaluate previous relevant experience in North Carolina, legislation and proposals in other jurisdictions, and the experience of other jurisdictions in applying such legislation. In connection with the studies directed by Section 1, the Commission, where desirable and feasible in its judgment, may include non-legislator members on the study subcommittees assigned these studies.

Sec. 3. The Commission shall report its findings and recommendations to the 1973 General Assembly.

Sec. 4. This resolution shall become effective upon its adoption.

APPENDIX B

LIST OF WITNESSES WHO APPEARED OR WERE INVITED TO APPEAR AT HEARINGS OF ENVIRONMENTAL STUDIES COMMITTEE ON THE SUBJECTS OF THIS REPORT

LEGISLATIVE RESEARCH COMMISSION

ENVIRONMENTAL STUDIES COMMITTEE

WATER SUPPLY DAMAGES, TOXIC WASTE REPORTING, AND NUTRIENT POLLUTION CONTROL

Witnesses Who Appeared at Committee Hearings

D. L. Coburn
Chief, Water and Air Resources Division
Department of Natural and Economic Resources
Raleigh, N. C.

Dr. B. J. Copeland
Department of Zoology
N. C. State University
Raleigh, N. C.

Dr. Donald E. Francisco
Deputy Director, UNC Wastewater Research Center
Chapel Hill, N. C.

Milton S. Heath, Jr.
Assistant Director
Institute of Government
Chapel Hill, N. C.

James Hudson

Andrew F. McRorie
Assistant Chief, Water Quality Division
Department of Natural and Economic Resources
Raleigh, N. C.

Representative Robie L. Nash
Rowan County

Representative Robert Odell Payne
Guilford County

Thomas Rosser
Assistant Attorney General
Raleigh, N. C.

William Stanback
Member Salisbury City Council

APPENDIX C

PROPOSED BILL TO IMPLEMENT RECOMMENDATIONS ON WATER SUPPLY DAMAGES

The proposed bill is modeled on House Bill 781 introduced into the 1971 Session of the General Assembly.

A BILL TO BE ENTITLED

AN ACT TO AUTHORIZE PUBLIC AGENCIES PROVIDING WATER SERVICES TO RECOVER DAMAGES FROM PERSONS POLLUTING THE WATER SUPPLY.

The General Assembly of North Carolina enacts:

Section 1. Definitions.--As used in this act, unless the context otherwise requires:

(1) "Person" shall mean any natural person, firm or partnership, association, public or private institution, municipality, political subdivision, governmental agency, or public or private corporation organized or existing under the laws of this State or any other state or nation.

(2) "Public agency" shall mean any city, town, incorporated village, county, water authority, political division or subdivision, or other entity of local or State government of the State of North Carolina which owns or operates a water system.

(3) "Water system" shall mean all plants, systems, facilities or property used in connection with the supply or distribution to the public of water and any integral part thereof, including, but not limited to: water, supply systems; water distribution systems, sources of water supply, including lakes, reservoirs and wells; intakes; mains; laterals; aqueducts; pumping stations;

standpipes; filtration plants; purification plants; hydrants; meters; valves; and all appurtenances, equipment and property necessary or convenient for operation of the system.

Sec. 2. Recovery authorized.--Every public agency is authorized to recover, as damages, any additional costs or expenses incurred in acquiring, processing, purifying or distributing a public water supply as the result of a violation by any person of the water quality standards applicable to classifications assigned to waters of this State pursuant to G.S. 143-214.1 or of a violation of any other law of this State relating to pollution of waters or watersheds.

Sec. 3. Demand for payment; suit.--(a) Written demand for payment of damages from the person responsible for a violation shall be made by a public agency within six months of the time that the damages were sustained. Damages will be deemed to have been sustained as of the date that additional costs or expenses caused by the violation were incurred.

(b) If the violation giving rise to a claim for damages is a continuing one, a public agency may determine its damages from time to time and make written demand for payment; but each demand shall be made within six months of the time when the damages claimed for were sustained.

(c) If payment or settlement of any claim is not made within a reasonable time, the public agency may institute an action to recover its damages in the superior court of the county in which the agency is located, or, at its election, in the superior court of the county in which the violation occurred. If the violation

is a continuing one, the agency may defer institution of the action until all damages have accrued.

Sec. 4. Damages.--(a) Measure. The person responsible for a violation of the water quality standards or other laws relating to pollution of waters or watersheds shall be liable to a public agency for any costs or expenses of acquiring, processing, purifying or distributing a water supply which would not have been incurred by the agency but for the violation; and such costs and expenses shall include the installed cost of any additional water acquisition, processing, purifying, or distributing facilities or equipment which were made necessary by the violation to acquire or adequately process, purify or distribute water.

(b) Apportionment. If it is determined, upon the evidence, that the costs of any additional equipment or facilities was excessive with regard to the nature or extent of the violation, or that the additional equipment or facilities would have been necessary within a reasonable time to acquire or properly process, purify or distribute the water in the absence of the violation, the court may apportion the costs of the additional facilities or equipment in such manner as it, in its discretion, shall determine to be equitable.

(c) When the violation of water quality standards or other laws relating to pollution of waters or watersheds by two or more persons concur to cause damages to a public agency, such persons shall be jointly and severally liable to the agency.

Sec. 5. If any provision of this act or the application thereof to any person or circumstances is held invalid, such

invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are declared to be severable.

Sec. 6. This act shall become effective upon ratification, but shall not apply to any claims that accrued prior to its ratification.

APPENDIX D

SECTION-BY-SECTION ANALYSIS OF PROPOSED WATER SUPPLY DAMAGES BILL

SECTION-BY-SECTION ANALYSIS OF PROPOSED WATER SUPPLY DAMAGES BILL

Section 1

In defining the key terms used in the proposed act, this section makes it clear that:

(1) The agencies that are authorized by the act to bring suit for pollution-caused damages to their water supply systems include every entity of local government or State government that owns or operates a public water supply system.

(2) The persons against whom suit may be brought under the act include anyone--whether an individual, a governmental entity or a private entity--responsible for causing damage to a public water supply system by polluting the waters of the State. Under the act such pollution may be proved by showing a violation of water quality standards or a violation of any other water pollution law.

Sections 2 and 3

These sections authorize any public water supply agency to bring suit and recover for damages caused to its water supply system by polluted water that can be traced to a violation of a state water quality standard or a violation of any state water pollution law. The intended effect is to ensure that no threshhold procedural barriers--such as a claim of sovereign immunity or lack of standing to sue or technical lack of riparian status--will prevent a lawsuit of this nature from going to trial on the merits.

Section 3 requires, as a prerequisite to bringing suit in reliance on this act, that a written demand for payment be made within six months after damages were sustained. It also prescribes the procedure for claims of continuing damage and the venue for bringing suit.

Section 4

This section (and Section 2) specify the measure of damages to be applied in lawsuits based upon this act: any additional expenses incurred in acquiring, processing, purifying or distributing a public water supply that would not have been incurred but for the water quality violation that gave rise to the suit. These expenses include additional equipment costs made necessary by the violation, but the court is directed to apportion the costs of additional equipment in an equitable way. Concurrent violators are declared to be jointly and severally liable, under subsection 4(c).

Sections 5 and 6

These sections contain a standard severability clause and make the act effective upon ratification. Section 6 specifies that the act shall be applied only prospectively. This law is designed,not to settle pending disputes,but to establish a policy to be applied to circumstances that arise after enactment.

APPENDIX E

PROPOSED BILL CONCERNING REPORTING OF INDUSTRIAL WASTES AND OTHER TOXIC WASTES

The proposed bill is modeled on House Bill 409 introduced into the 1971 Session of the General Assembly.

GENERAL ASSEMBLY OF NORTH CAROLINA

A BILL TO BE ENTITLED

AN ACT TO PROVIDE FOR THE MONITORING OF THE DISCHARGE OF INDUSTRIAL AND OTHER WASTE.

The General Assembly of North Carolina enacts:

Section 1. Short Title. This act shall be known and may be cited as the "Waste Discharge Reporting Act."

Sec. 2. Purpose. It is the purpose of this act to require regular reports which shall provide adequate information to local governments as to the volume and content of certain wastes being discharged to waste disposal systems, and thus serve as a basis for controlling and planning for the discharge and the treatment of such wastes so that the growth of this State may continue with the least detrimental impact upon the environment and upon water resources. This act requires that persons discharging certain wastes to waste disposal systems owned or operated by any county, municipality, or other public agency shall file reports of such discharges with appropriate county, municipal or other public officials.

Sec. 3. Household wastes. This act shall not apply to household wastes or sewage discharged from any residence or dwelling; provided, however, that this act shall apply to

industrial wastes and other wastes containing toxic materials, as herein defined, discharged from a residence or dwelling as the result of any commercial, business or industrial activity conducted on the premises.

Sec. 4. Definitions. As used in this act, unless the context otherwise requires:

(1) "Average daily discharge period" shall mean the time obtained by dividing the total number of hours per calendar month during which industrial wastes or other wastes containing toxic materials are discharged by the number of days on which discharges are made during a calendar month.

(2) "Concentration" shall mean the weight per unit volume of any single component of the waste being measured.

(3) "Content" shall mean the various components contained in the waste discharge.

(4) "Discharge" shall mean the emission, flowage, spillage, ejection or throwing off of any liquid, gas, or solid, or combination thereof, directly or indirectly, to the air, water or earth.

(5) "Maximum deviation" shall mean the percentage by which any twenty-four hour discharge volume during a calendar month exceeds the monthly average twenty-four hour discharge rate for that month.

(6) "Monthly average twenty-four hour discharge rate" shall be the average rate of discharge per twenty-four hour period obtained by determining the twenty-four hour discharge volume for each day that a discharge occurred during a calendar month and by dividing the total of the twenty-four hour discharge volumes by

1 the number of days that a discharge occurred during the calendar
2 month.
3 (7) "Other public agency" shall mean any commission, board,
4 committee, district, authority, council, department or other
5 division or subdivision of local or State government, other than
6 a county or municipality.
7 (8) "Persons" shall mean any and all natural persons, firms,
8 partnerships, associations, public or private institutions,
9 municipalities or political subdivisions, governmental agencies,
10 or private or public corporations organized or existing under the
11 laws of this State or any other state or country.
12 (9) "Toxic material" shall mean any liquid, solid or other
13 substance or combination thereof which is innerently harmful or
14 destructive to the health, well-being or life of plants, animals
15 or humans.
16 (10) "Twenty-four hour discharge volume" shall mean the volume
17 of wastes expressed in gallons, discharged during a period of
18 twenty-four consecutive hours.
19 (11) "Waste" shall mean anything left over or superfluous which
20 is unused, unproductive, or not subject to utilization; and shall
21 include the following:
22 a. "Sewage", which shall mean water-carried human body
23 waste discharged from residences, dwellings,
24 buildings, industrial or commercial establishments
25 or any other places.
26 b. "Industrial waste", which shall mean any liquid, or
27 water-borne solid or other waste substance, or a
28 combination thereof resulting from any process or

industry, manufacturing, trade or business, or from the development of any natural resource, but shall not include sewage.

c. "Other waste", which shall mean all liquid, water-borne solid or other waste substance, or a combination thereof, except industrial waste and sewage, including, but specifically not limited to: sawdust; shavings; lime; offal; oil, bitumins, and petroleum products or by-products; radio-active materials; poisons, pesticides, metals and other toxic materials; animal wastes and carcasses; fertilizer; and garbage and other refuse.

(12) "Waste disposal system" or "disposal system" shall mean a system for disposing of sewage, industrial wastes or other wastes, and shall include: pipelines or conduits, pumping stations, and force mains, and all other construction, devices, and appliances appurtenant thereto, used for conducting sewage, industrial wastes or other wastes to a point of ultimate disposal; and any plant, disposal field, lagoon, pumping station, or other works not specifically mentioned herein, installed for the purpose of treating, neutralizing, stabilizing or disposing of sewage, industrial waste or other waste.

Sec. 5. Authority to act. When any provision of this act requires or provides for action to be taken by a county, municipality or other public agency, it shall be appropriate for such action to be taken by the duly constituted governing body of the county, municipality or other public agency or by the person or agency lawfully designated by such body.

Sec. 6. Adoption of ordinances, etc. Every county, municipality or other public agency owning or operating a waste disposal system shall adopt, on or before July 1, 1974, or within thirty (30) days after such ownership or operation begins, whichever occurs later, rules, regulations or ordinances governing the discharge of waste to its disposal system. All such rules, regulations or ordinances shall be at least equivalent to the latest edition of the model ordinance recommended by the Water Pollution Control Federation.

Sec. 7. Reports. (a) Contents. Every person who discharges industrial wastes or other wastes containing toxic materials to a waste disposal system owned or operated by a county, municipality or other public agency shall file with the person whom the board of county commissioners, the city council or other public agency shall designate, a report which shall set forth such information as the county, municipality or other public agency may require by adoption of ordinances or regulations, but shall contain at least the following:

(1) The monthly average twenty-four hour discharge rate of industrial wastes and other wastes containing toxic materials, measured with such frequency and for such periods of time as the appropriate county, municipality or other public agency may require.

(2) The average daily discharge period, as defined herein.

(3) The maximum deviation, as defined herein.

(4) The pH and color of the industrial wastes or other wastes containing toxic materials discharged and

the weight per unit volume of total dissolved solids, suspended solids, volatile suspended solids, biochemical oxygen demand, heavy metals and toxic materials contained in such wastes, measured with such frequency and for such periods of time as the appropriate county, municipality or other public agency may require.

(5) A projection of any change in content, or of any increase or decrease in the volume or any variation in the concentration of the industrial wastes or other wastes containing toxic materials discharged, projected on a monthly basis for the twelve month period next following the date the report was filed.

(b) Certification. Every person filing a report required by this section shall certify in writing upon the face of the report that the information set forth therein was determined by measurement or analysis and is correct; but certification of a report filed pursuant to subsection (c)(2) of this section may state that any estimated volumes, rates, weights, concentrations or other qualitative or quantitative measurements are impossible to determine accurately but that such estimates will not vary more than ten percent (10%) from the actual discharge.

(c) Filing.

(1) Existing discharges. All persons discharging industrial wastes or other wastes containing toxic materials to a disposal system owned or operated by a county, municipality or other public agency as of

January 1, 1974, shall file the original report required by this section on or before July 1, 1974.

(2) Future discharges. Any person who desires to begin discharging industrial wastes or other wastes after January 1, 1974, to a disposal system owned or operated by a county, municipality or other public agency shall file with an application for permit the report required by this section, setting forth estimates of volumes, weights, concentrations and other qualitative and quantitative measurements when the actual data is not known or cannot be accurately determined; and shall file a report setting forth the actual data as determined by measurement and analysis of the discharge within 60 days after discharge of industrial wastes or other wastes begins, which shall be deemed an original report for purposes of this act.

(d) Annual reports. Every person discharging industrial wastes or other wastes containing toxic materials on and after January 1, 1975, to a disposal system owned or operated by a county, municipality or other agency shall file on or before January 31 of each year with the owning agency a certification to the effect that, by actual measurement and analysis, there has been no change in the content or increase exceeding ten percent (10%) in the volumes, rates, weights, concentrations or other qualitative or quantitative measurements of the industrial wastes or other wastes containing toxic materials discharged to the disposal system since the date of the original report filed or date of a

permit duly granted, whichever shall be most recent. The certification shall also set forth any projected change in content or increase or decrease in the volume or any variation in the concentration of industrial wastes or other wastes containing toxic materials to be discharged to the disposal system during the year next following the date of the certification.

Sec. 8. Permits. (a) When required.

(1) No person discharging industrial wastes or other wastes containing toxic materials as of January 1, 1974, to a disposal system owned or operated by a county, municipality or other public agency shall, after July 1, 1974, cause or allow any change of the contents of such discharge or cause or allow any volume, rate, weight, concentration or other qualitative or quantitative measurement of such waste in the discharge to exceed by more than ten percent (10%) any volume, rate, weight, concentration or other qualitative or quantitative measurement previously reported under this act without first having secured a permit from the county, municipality or other public agency, allowing a change in content or allowing a permanent or temporary deviation in excess of ten percent (10%).

(2) No person shall begin discharging industrial waste or other waste containing toxic materials after January 1, 1974, to a waste disposal system owned or operated by a county, municipality or other

public agency without first having secured a permit from the county, municipality or other public agency. The permit shall prohibit the discharge to vary in content from or to exceed by more than ten percent (10%) any estimated volume, rate, weight, concentration or other qualitative or quantitative measurement set forth in the report filed with the application for permit, without a variance first having been secured from the appropriate county, municipality or other public agency.

(b) Issuance. Every county, municipality or other public agency that owns or operates a waste disposal system shall adopt rules, regulations and procedures to receive applications for and to issue permits required by this act. The permit may contain such conditions as the county, municipality or other public agency shall deem to be appropriate. In determining whether a permit should be issued, the issuing authority shall consider, but shall not be limited in its consideration to, the existing capacity of its waste disposal system; any planned increases in capacity or efficiency of the existing disposal system; the effect of the applicant's wastes upon the disposal system; and the effect of the wastes discharged from the system upon the waters of the State. Any permit which is issued in violation of law or which allows a violation of water quality standards applicable to any waters classified pursuant to G.S. 143-214.1 shall be void.

Sec. 9. Exemption. (a) Applicability. This act shall apply to every person who discharges either industrial or other

wastes that contain toxic materials as herein defined. Any person who discharges wastes that do not contain toxic material may be exempt from the provisions of this act, except as provided by this section, upon a determination by the appropriate county, municipality or other public agency that the wastes discharged by such person do not constitute a significant discharge with relation to the existing waste disposal system capacity of the county, municipality or other public agency; Provided, however, that any twenty-four hour discharge volume that exceeds twenty-five thousand gallons shall constitute a significant discharge as a matter of law.

(b) Statement. Every person who desires or has received the exemption provided for in this section shall file a sworn statement on or before January 31 of each year with the appropriate county, municipality or other public agency which shall set forth:

(1) The nature of the industry, trade or business producing the waste discharge.

(2) The processes involved in the conduct of the industry, trade or business.

(3) The estimated twenty-four hour discharge volume expressed in gallons per day.

(4) Any increase in waste discharge volume or change in processes in the conduct of the industry, trade or business, that has occurred since the filing of the next preceding statement or that is projected for the calendar year next following the date of the filing of the statement.

(5) Any other information that the county, municipality or other public agency may require relating to the conduct or operation or the industry, trade or business.

(c) Other laws, ordinances, etc. This section shall not be construed to exempt any person from any other applicable law, rule, regulation or ordinance, local, State or federal.

Sec. 10. Measurement, analysis and monitoring. (a) Duties of persons discharging. Every person filing a report required by this act shall make such measurements and analysis or perform such monitoring of the waste discharge as are necessary to assure that there is no variance of content and that the actual volumes, weights and concentrations discharged thereafter do not vary more than ten percent (10%) from the reported volumes, weights and concentrations.

(b) Authority of agencies. Any county, municipality or other public agency may require any person responsible for the discharge of industrial or other wastes to its disposal system to perform such measurement, analysis or monitoring as the county, municipality or other public agency shall deem necessary; and the county, municipality or other public agency may measure, analyze or monitor the source of any discharge of industrial or other wastes to its disposal system and may charge the costs thereof to the person responsible for the discharge; and in any event, every county, municipality or other public agency providing liquid waste disposal for more than 25,000 people shall analyze and measure, at least once every six months, the industrial or other wastes discharged by every person required to report to determine

the accuracy of the reports of persons discharging to a disposal system; and may charge the costs to the person responsible for each discharge.

Sec. 11. Inspection of records. All reports or statements filed pursuant to this act shall be retained by the county, municipality or other public agency, as the case may be, for at least two years and shall be available for public inspection at reasonable times and places.

Sec. 12. Board of Water and Air Resources; copies of reports. Every county, municipality or other public agency shall furnish to the North Carolina Board of Water and Air Resources, upon its written request, a copy of any report or statement filed with and retained by it pursuant to this section.

Sec. 13. Penalties. (a) Failure to file report. Any person failing to file a report or statement required by this act shall be subject to a civil penalty of not more than two hundred fifty dollars ($250.00) per day for each day of delay after the required filing date.

(b) Violation of permit. Any person who shall discharge industrial or other wastes without a permit required by this act or who shall discharge such wastes in violation of the terms of a permit shall be subject to a civil penalty of not more than five thousand dollars ($5,000) for each day that such discharge occurs.

(c) False information. Any person who shall file a report or statement required by this act, knowing it to contain false information, shall be subject to a civil penalty of not

more than two thousand five hundred dollars ($2,500).

(d) Action to recover penalty. Recovery of the penalties provided for in this section shall be by civil action instituted by the county, municipality or other public agency in the superior court of the county in which it is located, and any sums recovered shall be a part of the general funds of the county, municipality or other public agency.

Sec. 14. If any provision of this act or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are declared to be severable.

Sec. 15. This act shall become effective January 1, 1974.

APPENDIX F

SECTION-BY-SECTION ANALYSIS OF PROPOSED TOXIC WASTE REPORTING BILL

SECTION-BY-SECTION ANALYSIS OF PROPOSED TOXIC WASTE REPORTING BILL

Section 1

This section entitles the proposed act as the "Waste Discharge Reporting Act."

Section 2

This section states that it is the purpose of the proposed act to require regular reporting concerning the volume and content of wastes discharged into waste disposal systems. The objective is to make possible better planning and management of waste treatment systems by cities, counties and other agencies responsible for waste treatment.

Section 3

This section exempts most household wastes or sewage from the Act. It would be unnecessary to report household waste discharges except where they are combined with industrial wastes or other wastes containing toxic wastes discharged from the premises.

Section 4

In defining the key terms used in the proposed act, this section makes it clear that the reporting requirements of the act would apply to all individuals, private entities and public entities that discharge industrial wastes or other wastes containing toxic materials to a sewer or any other part of a waste disposal system. "Toxic materials" are defined as any substance that is inherently harmful or destructive to health, well-being or life of humans, animals or plants. "Wastes" are defined, as in the State Stream Sanitation Law, to include sewage, industrial wastes and other designated wastes. This section also defines several technical and measurement terms used in the act (such as "average daily discharge period," "maximum deviation" and "monthly average twenty-four hour discharge rate").

Section 5

Section 5 authorizes the responsible local or state agency to implement the act through its governing body or to delegate the performance of its functions to an appropriate person or agency.

Section 6

Section 6 requires each waste disposal agency by July 1, 1974 to adopt implementing ordinances governing discharge of wastes to its system, with requirements at least equivalent to the latest model ordinance recommended by the Water Pollution Control Federation.

Section 7

This section contains the essential features of the act's reporting requirements. It requires that every person discharging industrial wastes or other toxic wastes to a public waste disposal system must file certain reports with the agency. In summary these requirements are:

(1) An original certified report must be filed that contains monthly and daily average discharge data, deviations from the average, specified data concerning the content of the wastes, and projections of anticipated monthly changes in volume and content during the succeeding twelve months.

(2) Annual certified reports must be filed showing changes in the information from the preceding report, and projections for the year ahead.

Section 8

Section 8 establishes a permit mechanism to enable public waste disposal agencies to exercise control over increased volumes and concentrations of wastes discharged into their systems. Before increasing the volume or

concentration of wastes by more than 10% above projected discharges, an existing discharger must obtain a permit from the disposal agency allowing a permanent or temporary deviation. Any person proposing to initiate a new discharge must secure a permit in advance; under such a permit averages above estimated discharge in excess of 10% require a variance.

Section 9

This section establishes a procedure by which a discharger of relatively small volumes of non-toxic wastes may secure an exemption from the reporting requirements. Exemptions are not available if the volume discharged exceeds 25,000 gallons in any day.

Section 10

This section imposes a duty on all who file reports under this act to monitor their wastes in order to ensure that actual discharges do not exceed reported discharges by more than 10%, by volume, weight or concentration. It also enables the disposal agencies to require additional monitoring where needed, and to conduct their own monitoring, the costs of which may be charged back to the discharger.

Sections 11 and 12

These sections require that reports filed under the act be retained for at least two years as public records, and that copies of the reports be furnished to the N. C. Board of Water and Air Resources on request.

Section 13

Section 13 prescribes civil penalties for violations of the act, specifically:

* Up to $250 per day for each day of delinquency in filing required reports.

* Up to $5,000 per day for each day of delinquency in violations of permit requirements.

* Up to $2,500 for filing false reports. Recoveries of these penalties (by civil action) are to accrue to the benefit of the general fund of the city, county or other public agency bringing suit.

Sections 14 and 15

These sections contain a standard severability clause and make the proposed act effective January 1, 1974.

APPENDIX G

PROPOSED EFFLUENT STANDARDS BILL

A BILL TO BE ENTITLED

AN ACT TO AMEND CHAPTER 143 OF THE GENERAL STATUTES OF NORTH CAROLINA, SO AS TO EMPOWER THE NORTH CAROLINA BOARD OF WATER AND AIR RESOURCES TO ADOPT EFFLUENT LIMITATIONS OR STANDARDS FOR SOURCES OF WATER POLLUTION.

The General Assembly of North Carolina enacts:

Section 1. G.S. 143-213 is hereby amended by renumbering existing subdivisions (12) - (14) as (13) - (15), by renumbering existing subsections (15) - (21) as (17) - (23), by inserting therein two new subdivisions,to be numbered subdivisions (12) and (16) and to read as follows:

"(12) The term 'effluent limitation' means any restrictions established by the Board on quantities, rates, and concentrations of chemical, physical, biological, and other constituents of effluents which are discharged from point sources into the waters of the State, including schedules and timetables for compliance."

"(16) The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."

Sec. 2. Subsection (a) of G.S. 143-214.1 is hereby amended by deleting the word "and" at the end of paragraph (2) of said subsection; by changing the period at the end of paragraph (3) of such subsection to a semicolon; by adding the word "and" following said semicolon; and by adding thereafter a new paragraph (4) to read as follows:

"(4) To develop and adopt such effluent limitations and standards (or prohibitions) as in the judgment of the Board may be necessary

to prohibit, abate or control water pollution commensurate with established water quality standards. Such effluent limitations and standards (or prohibitions) may be applied uniformly to the State as a whole or to any area of the State designated by the Board. Such provisions may include, without limitation, effluent limitations for point sources, effluent standards (or prohibitions) for toxic pollutants or combinations of such pollutants, and pretreatment standards for discharges of pollutants in treatment works."

Sec. 3. This Act shall become effective upon its ratification.

APPENDIX H

SECTION-BY-SECTION ANALYSIS OF PROPOSED EFFLUENT STANDARDS BILL

SECTION-BY-SECTION ANALYSIS OF PROPOSED EFFLUENT STANDARDS BILL

Section 1

This section adds two new definitions to the present State pollution control law in order to make plain the meaning of the key terminology used in this bill. The first provision would define "effluent limitations" as restrictions established on quantities, rates, and concentrations of constituents of effluents that are discharged from point sources of pollution. The second provision would define a "point source" of pollution as any discernible, confined and direct conveyance (with certain examples) from which pollution may be discharged. Both definitions are modelled closely upon pending federal water pollution control legislation, so as to facilitate consistent administration of federal and State laws.

Section 2

This section amends the present authority of the N. C. Board of Water and Air Resources over water quality standards by making explicit the authority of the Board to establish effluent limitations, standards and (if necessary) prohibitions. Although the Board may already have the powers provided by this section, this is not explicit in present law. Clarifying the Board's authority in this respect will be a useful assist to many aspects of water pollution control wherein effluent standards are needed for effective control of pollution.

The language of the new provision on water pollution effluent standards is similar to that used in G.S. 143-215 in authorizing emission control standards for air pollution. The specific references to effluent limitations for point sources, effluent standards (or prohibitions) for toxic pollutants, and pretreatment standards incorporate provisions in pending federal legislation.

Section 3

This section would make the proposed act effective upon ratification.